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COMPLETE SPECIFICATION.

Improvements in Disinfecting Apparatus.

A communication from BERNARD M<sup>c</sup>EVROY, of the City of Toronto, County of York, Province of Ontario, Canada, Journalist.

I, ALFRED JULIUS BOULT of 323 High Holborn in the County of Middlesex, Chartered Patent Agent do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

5 The object of the invention is to design an apparatus in which clothing and all kinds of material may be readily and thoroughly disinfected, and it consists, essentially, of a hermetically sealed vessel or chamber designed to contain the material to be disinfected and held at a high temperature and provided with means for exhausting the air from the said vessel, charging it with steam which is  
10 afterwards exhausted; substantially as hereinafter more particularly explained.

Figure 1 is a perspective view of the improved apparatus parts being broken away to expose its interior construction.

Figure 2 is a cross-section of the disinfecting chamber.

Figure 3 is a longitudinal section of one end of the disinfecting chamber.

15 In the drawing A represents a vessel or chamber, preferably cylindrical in form.

B is an outer casing surrounding the vessel A, a space *a* being left between the two.

At each end of the vessel A is provided a cover C having simple fastening  
20 devices and designed to hermetically seal the ends of the vessel A and the space *a*.

D is a steam boiler.

E is a pipe leading from the steam boiler D, to the interior of the vessel A, and F is a pipe leading from the boiler A to the space *a* a corresponding space  
25 being formed in each cover C, so that the steam admitted into one space shall enter and fill all the spaces which surround the body and ends of the vessel.

G is an air pump provided with a pipe leading to the interior of the vessel A. All the pipes are provided with suitable stop cocks, and drain pipes with suitable cocks are provided wherever necessary.

30 It is preferred to place the vessel A so that its ends shall be in separate chambers in order that the material after it has been carried through the apparatus and disinfected, may be completely isolated from the material waiting to be disinfected.

H is a cage suitably constructed to contain the material to be disinfected. This  
35 case is preferably carried on a truck in order that it may be readily moved into and moved out of the vessel or chamber A.

The operation of the apparatus is as follows;—

The material to be disinfected is placed in a cage G which is pushed into the vessel A when the cover is hermetically sealed in position. Steam is then admitted  
40 into the space *a* and when the chamber or vessel A is heated to a high temperature of not less than two hundred and twelve degrees (but preferably considerably higher) the air pump G is started, and as perfect a vacuum as is possible is made in the vessel A. Steam is then admitted into the vessel or chamber A and retained there under pressure for a half an hour, more or less, according to the nature of  
45 the article being disinfected. The steam is then cut off and the air pump G again started and as perfect a vacuum as is possible is once more created in the chamber or vessel A. The cover C on the end opposite to that through which the articles were placed in the chamber or vessel A is removed and the cage H is withdrawn

[Price 8d.]



*Boult's Improvements in Disinfecting Apparatus.*

from the vessel or chamber A into an apartment separated from the compartment containing the infected material.

In some cases it is advisable to destroy the bacili taken from the infected material. To accomplish this, the exhaust is directed from the vessel containing the material into the fire-box of the boiler from which the steam is obtained. 5

Having now particularly described and ascertained the nature of the said invention as communicated to me by my foreign correspondent, and in what manner the same is to be performed, I declare that what I claim is :—

1. A hermetically sealed vessel containing the material to be disinfected and held at a temperature of not less than two hundred and twelve degrees in combination with means for charging the said vessel with steam ; substantially as and for the purpose specified. 10

2. A hermetically sealed vessel containing the material to be disinfected and held at a temperature of not less than two hundred and twelve degrees in combination with means for charging the said vessel with steam at high pressure substantially as and for the purpose specified. 15

3. A hermetically sealed vessel containing the material to be disinfected and held at a temperature of not less than two hundred and twelve degrees in combination with means for exhausting the air from the said vessel and charging it with steam which is afterwards exhausted ; substantially as and for the purpose specified. 20

4. A hermetically sealed vessel containing the material to be disinfected and held at a temperature of not less than two hundred and twelve degrees in combination with means for charging the said vessel with steam at high pressure which is afterwards exhausted substantially as and for the purpose specified. 25

5. A chamber or vessel with openings leading into separate chambers or apartments each opening being hermetically sealed by a detachable cover to hold the material to be disinfected the interior of the said vessel being held at a temperature of not less than two hundred and twelve degrees in combination with means for exhausting the air from the said vessel then charging it with steam which is afterwards exhausted substantially as and for the purpose specified. 30

6. A hermetically sealed vessel containing the material to be disinfected a jacket surrounding the said vessel and filled with steam at a high pressure in combination with means for exhausting the air from the said vessel then charging it with steam which is afterwards exhausted substantially as and for the purpose specified. 35

7. A hermetically sealed vessel containing the material to be disinfected and held at a temperature of not less than two hundred and twelve degrees in combination with means for exhausting the air from the said vessel into a fire-box or furnace substantially as and for the purpose specified. 40

Dated this 25th day of May 1893.

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Agents for the Applicant.

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[This Drawing is a reproduction of the Original on a reduced scale.]

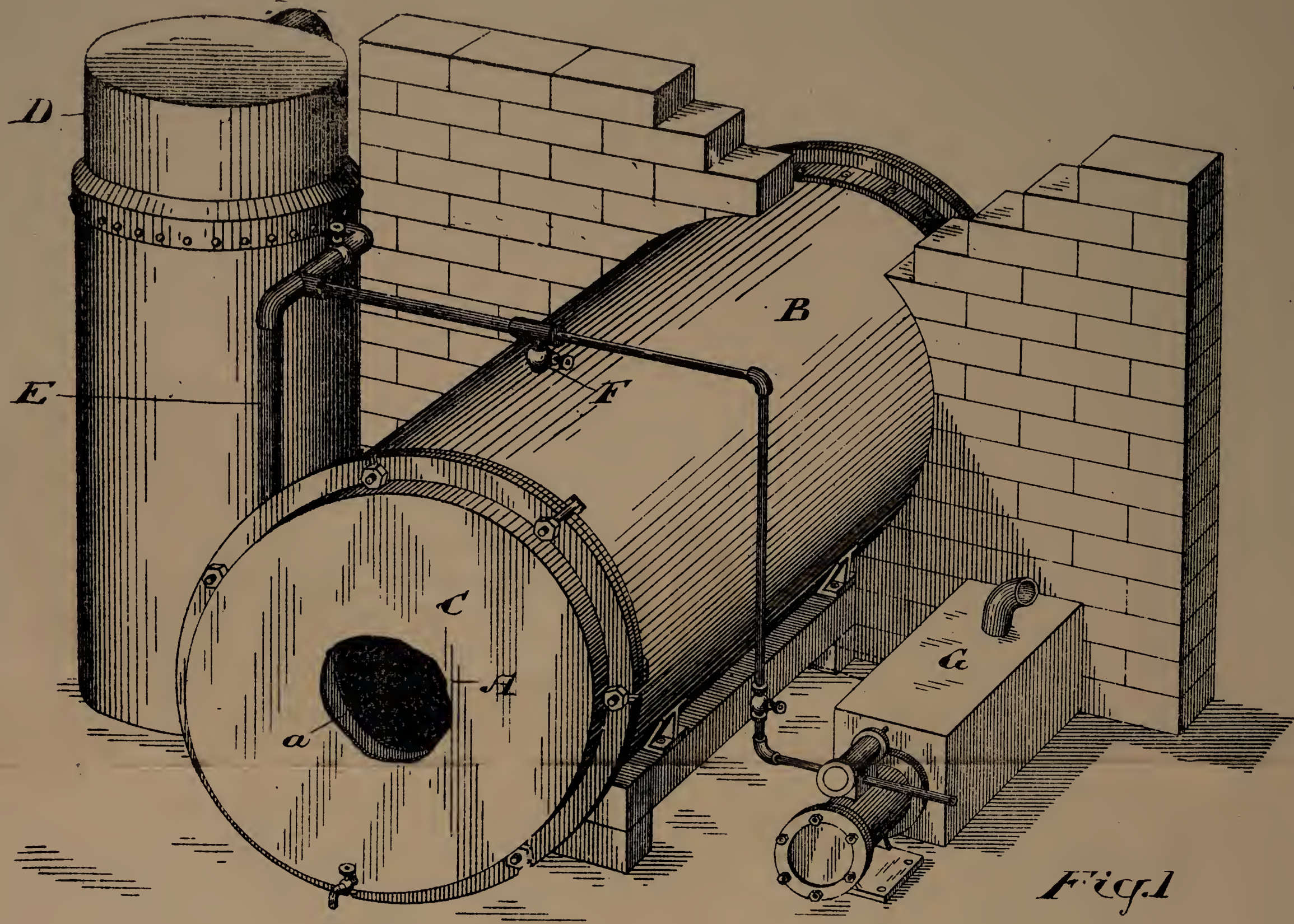


Fig. 1

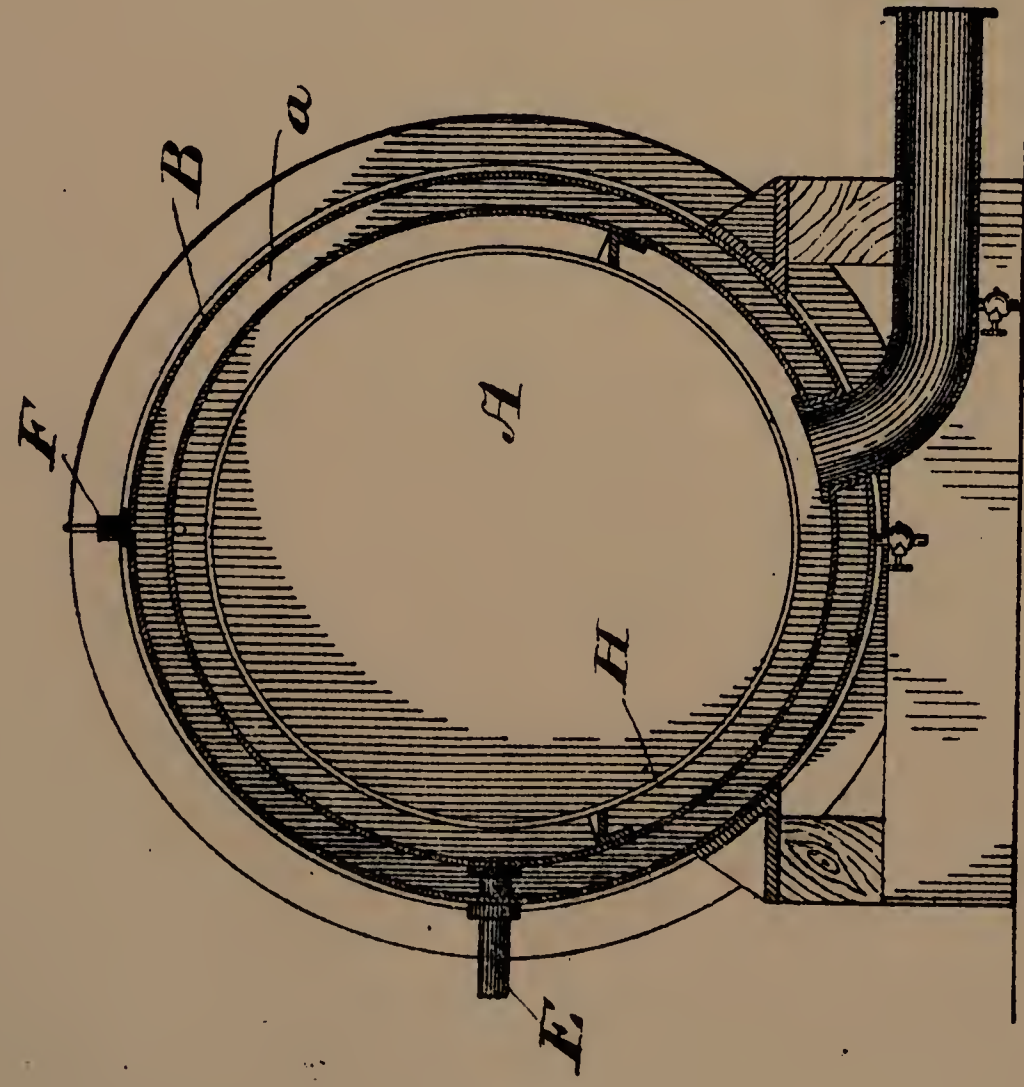


Fig. 2

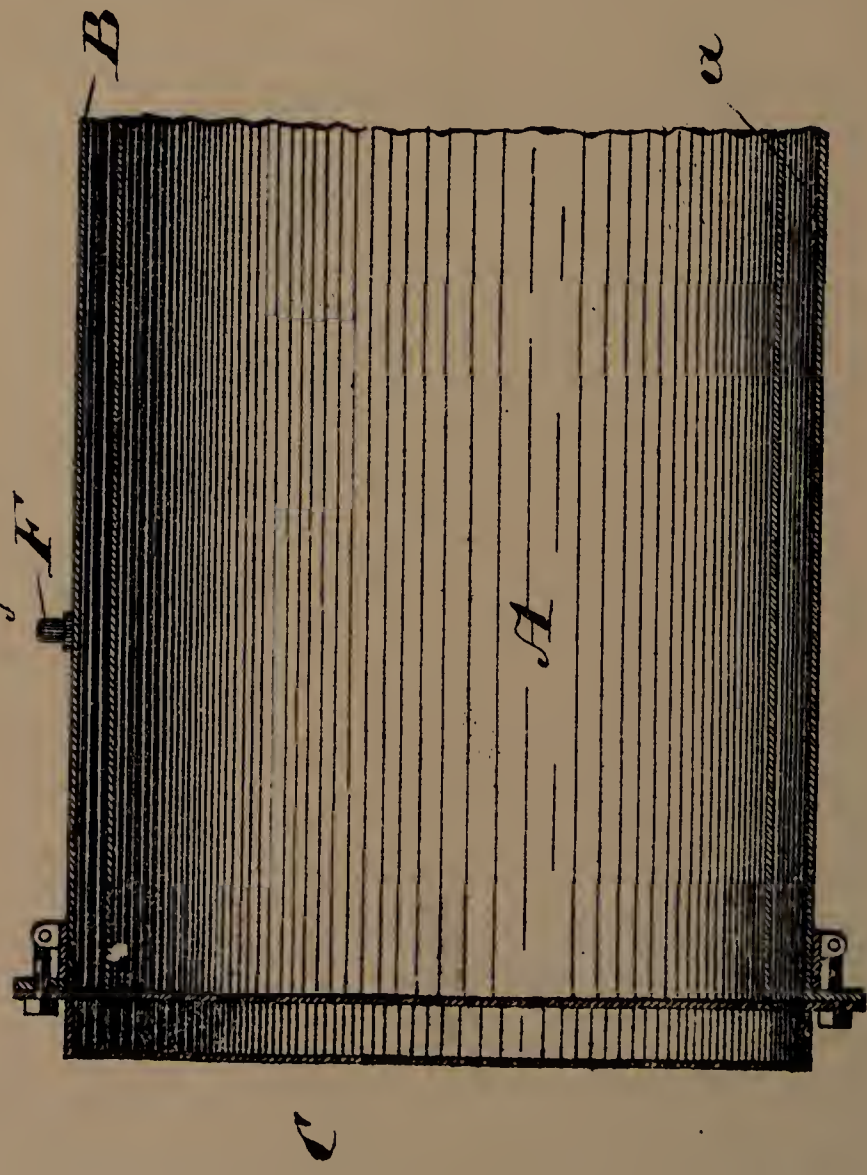


Fig. 3



